REMARKS

I. INTRODUCTION

Claims 1, 8, 9 and 10 have been amended. Claim 2 has been previously cancelled. Thus, claims 1 and 3-18 are pending in the present application. In view of the above amendments and following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

II. THE 35 U.S.C. § 102(b) REJECTIONS SHOULD BE WITHDRAWN

Claims 1, 4, 8 and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by non-patent literature Vullings et al. "Automated ECG Segmentation with Dynamic Time Warping" (hereinafter "Vullings"). (See 04/29/2008 Office Action p. 2-3).

Vullings describes a method to detect an abnormal conduction of the heart including a single-lead method based on ECG segmentation with dynamic time warping. (See Vullings Abstract). The method consists of performing some filtering to remove high frequency noise and approximating the filtered signal with lines. (See Vullings, p. 163, Method). Vullings compares two complete heartbeats with each other in such a way that the total distance between the two periods is minimized. (See Vullings, p. 164, The DTW Algorithm).

Claim 1 recites "[a] method of determining a corresponding image for a reference image from an image sequence of a moving object by means of a first and a second motion signal, in which the first and the second motion signal represent the respective variation in time of the states of motion of a first motion and a second motion of the object, the first and second motion signals being generated by a first type of device, the image sequence represents the first motion of the object as a sequence of images of states of motion, the image sequence being generated by a second type of device, the reference image represents a state of motion from the second object motion and is acquired at a reference instant during the second motion of the object, including

the following steps: a. examining the first and the second motion signal for similarities to determine a similarity function, b. calculating a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to the acquisition instant of the reference image from the second motion signal, and c. defining the corresponding image by identification of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method."

The Examiner asserts that the recitation in claim 1 is taught by Vullings. (See 04/29/2008 Office Action, p. 2-3). Applicants respectfully disagree. Vullings recites a method of automatic segmentation of ECG data. (See Vullings Abstract). In figures 5-7, Vullings illustrates multiple representations of ECG data. However, Vullings describes obtaining only ECG data and does not teach or suggest obtaining any other form of information. Additionally, Vullings only describes performing actions on collected ECG data.

In contrast, claim 1 recites "[a] method of determining a corresponding image for a reference image from an image sequence of a moving object by means of a first and a second motion signal, in which the first and the second motion signal represent the respective variation in time of the states of motion of a first motion and a second motion of the object, *the first and second motion signals being generated by a first type of device,* the image sequence represents the first motion of the object as a sequence of images of states of motion, *the image sequence being generated by a second type of device.*" Since Vullings describes **only** obtaining ECG data, it does not teach or suggest first and second motion signals being generated by a first type of device and an image sequence being generated by a second type of device. There is no image sequence information being generated or information being generated by a second type of device

Therefore, Applicants submit that claim 1 is allowable. Because claim 4 depends from, and therefore includes all the limitations of claim 1, it is respectfully submitted that claim 4 is also allowable for at least the same reasons given above with respect to claim 1.

Independent claim 8 recites "A system which includes a data processing unit for defining a corresponding image of a moving object for a reference image from an image sequence by means of a first and a second motion signal, the first and second motion signals being generated by a first type of device, the image sequence being generated by a second type of device." Thus, Applicants respectfully submit that claim 8 is allowable for at least the same reasons as claim 1.

Independent claim 10 recites "examining the first and the second motion signal for similarities to determine a similarity function, calculating a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to an acquisition instant of the reference image from the second motion signal, and defining the corresponding image by identification of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, the first and second motion signals being generated by a first type of device, the image sequence being generated by a second type of device." Thus, Applicants respectfully submit that claim 10 is allowable for at least the same reasons as claim 1.

III. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN

Claims 3, 5-7 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Vullings in view of Beier "Advanced Subtracting Angiography: Mask Selection and Image Registration" (hereinafter "Beier") in further view of U.S. Patent No. 6,228,030 to Urbano et al. (hereinafter "Urbano"), U.S. Patent No. 5,776,063 to Dittrich et al. (hereinafter "Dittrich"). (See 04/29/2008 Office Action p. 3-5).

Beier describes a method for advanced subtraction angiography that is fully automated and does not need any interaction like demarcation of landmarks. (See Beier Abstract). Urbano describes a scheme for locating the time of occurrence of a predetermined event in a physiologic cycle assocated with an anatomical object of a subject's body. (See Urbano Abstract). Dittrich describes a method and apparatus for directly identifying and characterizing input data derived from regions of interest in ultrasound images of organs in the presence of attenuation from interposed contrast agent. (See Dittrich Abstract).

Applicants submit that Beier, Urbano and Dittrich either alone or in combination do not cure the above described deficiencies of Vullings with respect to claim 1. Therefore, Applicants submit that claim 1 is patentable over Beier, Urbano and Dittrich. Because claims 3 and 5-7 depends from, and therefore includes all the limitations of claim 1, it is respectfully submitted that this claim is also allowable for at least the same reasons given above with respect to claim 1.

Independent claim 9 recites "which apparatus includes a system with a data processing unit for determining a corresponding image of a moving object for a reference image from an image sequence by means of a first and a second motion signal, the first and second motion signals being generated by a first type of device, the image sequence being generated by a second type of device." Thus, Applicants respectfully submit that claim 9 is allowable for at least the same reasons as claim 1.

Claims 11-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Vullings in view E. G. Schukat-Talamazzini "Automatische Spracherkennung" (hereinafter "Schukat-Talamazzini"). (See 9/11/07 Office Action p. 10).

Applicants submit that Schukat-Talamazzini does not cure the above described deficiencies of Vullings with respect to claim 10. Therefore, Applicants submit that claim 10 is patentable over Schukat-Talamazzini. Because claims 11-18 depend from, and therefore include all the limitations of claim 10, it is respectfully submitted that this claim is also allowable for at least the same reasons given above with respect to claim 10.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that all of the now pending claims are in condition for allowance. All issues raised by the Examiner having been addressed. An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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By: _____
Michael Marcin (Reg. No. 48,198)

Fay Kaplun & Marcin, LLP
150 Broadway, Suite 702
New York, NY 10038
Phone: 212-619-6000
Fax: 212-619-0276